



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,535	01/18/2001	Daniel S. Kwoh	41592/WWM/K296	1407
23363	7590	07/05/2005		
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			EXAMINER PORTER, RACHEL L	
			ART UNIT	PAPER NUMBER

3626

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/765,535

Applicant(s)

KWOH, DANIEL S.

Examiner

Rachel L. Porter

Art Unit

3626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-25 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-15 and 17-25 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to the amendment filed 4/18/05. Claims 1-15 and 17-25 are presented for examination. Claim 16 has been canceled.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13 and 17-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, the recited steps of providing information on travel products, receiving information on travel products, determining the cost of the travel products, requesting alternate travel products and determining travel costs including a discount

Art Unit: 3626

does not apply, involve, use, or advance the technological arts since all of the recited steps can be performed in the mind of the user or by use of a pencil and paper. The recited steps only constitute an idea on how to calculate travel costs including discounted fares.

It is noted that the present claims recite a "database." However, a database, per se, may be defined simply as "any aggregation of data." (*Microsoft Press Computer Dictionary*, 2nd Edition, page 105, enclosure included) As such, the recitation of a database in the claim does not confer statutory status to the claimed invention, since the use of a database (e.g. a collection paper documents) does not necessarily apply, involve, use or advance the technological arts.

Furthermore, mere intended or nominal use of a component, albeit within the technological arts, does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case the claimed method recites steps for calculating travel costs.

Although the claimed invention produces a useful, concrete and tangible result, since the claimed invention as a whole is not within the technological arts, as explained above, claims 1-13 and 17-20 are deemed to be directed to non-statutory subject matter.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 3626

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6-7 and 12-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 6 recites the limitation "the received duration of time ..." in line 6. There is insufficient antecedent basis for this limitation in the claim. The preceding claims do not recite that both airline departure and return date is entered by the user and/or received by the system. Claim 7 inherits the deficiencies of claim 6 through dependency and is therefore also rejected.

6. Claim 12 recites the limitation "the received desired travel product information" in lines 15-16. There is insufficient antecedent basis for this limitation in the claim. The previous steps have been amended to recite "the received information for the plurality of travel products." It is unclear if Applicant's wants information on a particular product or on the plurality of products previously recited in the claim.

7. Claim 25 recites, "a single database comprises the first and second databases." It is unclear to the Examiner what the applicant intends to claim with this limitation and whether the first and second databases are in fact 2 databases or whether they are a single database. For the purpose of applying art, the Examiner will interpret the claim to mean that multiple databases may be accessed.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-3, 12, 13, and 17-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Iyengar et al., Pat. No. 6,360,205 (hereinafter Iyengar).

As to claim 1, Iyengar discloses an electronic method for calculating travel costs for a user (see abstract) comprising:

- an information request step, wherein the user is prompted to enter information for a plurality of travel products (e.g. flights, esp. with various airlines) (see Fig. 7, Fig. 8, Fig. 23 and Fig. 24);
- an information receipt step, wherein the information for the plurality of travel products is received from a user (Fig. 7, Fig. 8, col. 11, lines 12-17; Fig. 23 and Fig. 24—user enters information for flights on selected airlines for example);
- a calculation step, wherein the received information is used to search through a database to determine the cost of each of a plurality of travel products (col. 9, lines 12-40; col. 10, lines 62-col. 11, line 12—information from the membership database provides information used in calculating costs for travel products—e.g. departing city/home airport); and

- a reporting step, performed after the calculation step wherein the cost of each of a plurality of travel product is reported to the user (Fig. 24);
- a prompting step wherein the user is prompted to request alternative travel product information (i.e. perform another search; web specials)(Fig. 10); and
- an alternative travel request receipt step wherein a user request to receive alternative travel product information is received (Fig. 10).
- a second calculating step wherein a discount information is accessed to determine alternative travel products to offer the user (Fig. 10; col. 11, lines 26-43); and
- an alternative travel reporting step wherein alternative travel products are reported to the user (col. 11., lines 27-34).

As to claim 2, lyengar discloses an electronic method for calculating travel costs wherein the reporting step and the alternative travel reporting steps comprise displaying a range of prices for each travel product based upon availability of products from different product providers and displaying a total price range for all of the requested travel products (Fig. 10).

As to claim 3, lyengar discloses an electronic method for calculating travel costs of wherein the information request step further comprises prompting a user to select an airline departure date, a departure location, a destination location (see Fig. 8).

As to claim 12, the limitations of claim 12 are substantially similar to those recited in claim 1. As such, the limitations of claim 12 are addressed by the rejection of claim 1, and incorporated herein.

As per claim 13, lyengar teaches a method for calculating travel costs of claim wherein the information request step further comprises prompting a user to enter a desired airline. (Figure 8)

As to claim 17, the limitations of claim 12 are substantially similar to those recited in claim 1. As such, the limitations of claim 12 are addressed by the rejection of claim 1, and incorporated herein.

As to claim 18, lyengar teaches a method for calculating travel costs wherein the information request step further comprises prompting a user to select attributes for airplane related travel products. (Figure 7)

As to claim 19, lyengar teaches a method for calculating travel costs wherein the reporting step comprises displaying a range of prices for each travel product based upon availability of products from different product providers and displaying a total price range for all of the requested travel products. (Figure 10)

As to claim 20, lyengar teaches a method for calculating travel costs wherein the alternative travel reporting step comprises displaying alternative travel products in sets, and displaying a total price range for all of the selected alternative travel products in a given set. (Figure 10, Figures 24-25)

As per claim 21, lyengar teaches an electronic method comprising:

- providing a user interface to a user over a communications network; (col. 6, lines 7-

Art Unit: 3626

- causing the user interface to prompt the user to enter information for a plurality of travel products into the user interface; (Figure 10; col. 7, lines 29-47; col. 9, lines 12-35)
- receiving the information over the communications network; (col. 7, lines 29-47)
- searching a first database on a server to determine the cost of the plurality of travel products; (col. 9, lines 12-40; col. 10, lines 62-col. 11, line 12—information from the membership database provides information used in calculating costs for travel products—e.g. departing city/home airport); and
- generating a report to be displayed through the user interface, the report comprising the cost of each travel product to be displayed concurrently; (Fig. 24);
- causing the user interface to prompt the user to request alternate travel product information; (i.e. perform another search; web specials)(Fig. 10);
- receiving alternative travel product information from the user; (Fig. 10
- accessing a second database to determine alternative travel products to offer the user; and (Fig. 10; col. 11, lines 26-43)
- generating a report to be displayed through the user interface, the report comprising the each alternative travel product is reported. (col. 11, lines 27-34)

As per claim 22, Iyengar teaches a method wherein a processor in the server executes the searching of the first database. (Figure 23, i.e. target sites/machines; col. 6, lines 60-col. 7, line 18; col. 19, lines 34-53)

As per claim 23, Iyengar teaches a method further comprising: transmitting the report over the communication network to a user device. (Figure 10, 24-25; col. 19, lines 34-57)

As per claim 24, Iyengar teaches a method wherein the communications network is the Internet. (col. 6, lines 7-19)

As per claim 25, Iyengar teaches a method, wherein multiple databases may be accessed. (col. 6, lines 60-col. 7, line 18)

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar in view of Jafri et al., Pat no. 5,832,454 (hereinafter Jafri).

As to claim 4, Iyengar does not explicitly disclose an electronic method for calculating travel costs of claim 3 wherein the information request step further comprises prompting a user to select a hotel location and a number of nights to reside at the hotel. However, Jafri discloses wherein the information request step further comprises prompting a user to select a hotel location and a number of nights to reside at the hotel (col. 2, lines 55-60 and line 66 – col. 4, line 3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein

Art Unit: 3626

the information request step further comprises prompting a user to select a hotel location and a number of nights to reside at the hotel as disclosed by Jafri within Iyengar for the motivation of providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 5, Iyengar does not explicitly disclose an electronic method for calculating travel costs of claim 4 wherein the information request step further comprises prompting a user to select a rental car location and a number of days a rental car will be rented. However, Jafri discloses wherein the information request step further comprises prompting a user to select a rental car location and a number of days a rental car will be rented (col. 2, lines 55-60 and line 66 – col. 4, line 3). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein the information request step further comprises prompting a user to select a rental car location and a number of days a rental car will be rented as disclosed by Jafri within Iyengar for the motivation of providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 6, Iyengar does not explicitly disclose an electronic method for calculating travel costs of claim 5 wherein as part of the calculation step, the received duration of time between the airplane departure date and the airplane return date is used to determine the number of nights to reside at the hotel and the number of days a rental car will be rented. However, Jafri discloses a method wherein as part of the calculation step, the received duration of time between the airplane departure date and the airplane return date is used to determine the number of nights to reside at the hotel

Art Unit: 3626

and the number of days a rental car will be rented (col. 2, lines 55-60 and line 66 – col. 4, line 3; col. 5, lines 41-60). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein as part of the calculation step, the received duration of time between the airplane departure date and the airplane return date is used to determine the number of nights to reside at the hotel and the number of days a rental car will be rented as disclosed by Jafri within Iyengar for the motivation of providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 7, Iyengar does not explicitly disclose an electronic method for calculating travel costs of claim 6 wherein as part of the calculation step, the airplane destination city is used to determine the hotel location and the rental car location. However, Jafri discloses wherein as part of the calculation step, the airplane destination city is used to determine the hotel location and the rental car location (col. 2, lines 55-60 and line 66 – col. 4, line 3; col. 5, lines 41-60). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein as part of the calculation step, the airplane destination city is used to determine the hotel location and the rental car location as disclosed by Jafri within Iyengar for the motivation of providing greater speed and ease of use when generating travel itineraries for customers (col. 1, lines 40-65).

As to claim 8, Iyengar discloses an electronic method for calculating travel costs of claim 5 wherein alternative travel products are found by altering departure flight city, the departure flight date, the destination city, the return flight date. (see Fig. 10).

As to claim 9, Iyengar discloses an electronic method for calculating travel costs of claim 8 further comprising a prompting step wherein a user is prompted to purchase travel products (Fig. 10).

As to claim 10, Iyengar discloses an electronic method for calculating travel costs of claim 9 further comprising:

- a personal information prompting step wherein the user is prompted to enter personal information (Fig. 5, Fig. 6);
- a personal information receiving step wherein personal information is received from a user (Fig. 5, Fig. 6);
- a payment information prompting step wherein the user is prompted to enter payment information (col. 8, lines 9-24);
- a payment information receiving step wherein payment information is received from a user (col. 8, lines 9-24); and
- a reservation step wherein travel product providers of the purchased products are contacted, reservations are made, and travel products purchased (col. 8, lines 9-24).

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar and Jafri as applied to claim 10 above, and further in view of Delorme et al., Pat. No. 5,948,040 (hereinafter DeLorme).

As to claim 11, Iyengar and Jafri in combination teach the method of claim 10 as explained in the rejection of claim 10, but do not explicitly disclose a method wherein

Art Unit: 3626

the information request step further comprises prompting a user to input cruise information. However, DeLorme discloses wherein the information request step further comprises prompting a user to input a cruise departure date. (see Fig. 6 and col. 52, lines 23-42). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to include wherein the information request step further comprises prompting a user to select at least one of the group consisting of a cruise departure date, a cruise departure location, a cruise destination location, a cruise return date, a cruise provider, a cruise ship, a cruise name, and a cruise passenger class disclosed by DeLorme within Iyengar and Jafri for the motivation of providing a system with complete integration of travel/activity required by a user (col. 6, lines 47-54).

13. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iyengar in view of Vance et al., Pat no. 6,442,526 (hereinafter Vance).

As to claim 14, Iyengar teaches system for determining travel product prices for users comprising:

- an information server coupled to a computer network; (Figure 2; col. 7, lines 19-28; col. 7, lines 48-61)
- a user terminal coupled to the computer network; (col. 6, lines 25-44)
- a first database coupled to the computer network for storing airplane flight information; (col. 6, line 20-23; col. 6, lines 60-col. 7, line 18—Iyengar discloses that the reservation information stored by the system may include hotel, airline, and car rental information and the system includes a plurality of databases)

Art Unit: 3626

- a second database coupled to the computer network for storing hotel information; (col. 6, line 20-23; col. 6, lines 60-col. 7, line 18)
- a third database coupled to the computer network for storing rental car information; (col. 6, line 20-23; col. 6, lines 60-col. 7, line 18)
- wherein the information server is configured to receive a request for information on a plurality of travel products from the user terminal, (col. 6, lines 15-23; col. 6, lines 60-col. 7, line 18)

Iyengar further discloses that the system/method provides a report on airplane flight information from the first database (Figures 10, Figure 24), but does not expressly disclose that the method will aggregate hotel, car rental, and airline information from various databases and transmit display information on each of these travel products as a single report on a user terminal. Vance et al discloses a system/method wherein hotel information, car rental information, and airplane flight information from various databases is aggregated and transmitted to a user terminal in a single report. (col. 5, 30-47). At the time of the Applicant's invention, it would have been obvious to one of ordinary skill in the art to modify the method of Iyengar with the teaching of Vance to provide a single report containing hotel, car rental, and flight information with the motivation of providing an integrated database system that facilitates the comparison of travel data. (col. 2, lines 49-54)

As to claim 15, Iyengar discloses a method in which the reservation information stored by the system may include hotel, airline, and car rental information and the system includes a plurality of databases. (col. 6, line 20-23; col. 6, lines 60-col. 7, line

Art Unit: 3626

18) Furthermore, the server may be requested to retrieve and transmit web specials (i.e. discounted rates) for each of these types of travel products to the user. (Fig. 10; col. 26-43)

Response to Arguments

14. Applicant's arguments filed 4/18/05 have been fully considered but they are not persuasive.

(A) Applicant argues the requirement of the technological arts standard in claim language and has removed the previous amendments to the claim language, which recited that the method was performed by a computer.

In response, the rejection of claims 1-13 and 17-20 under 35 USC 101 is hereby maintained, and Applicant's arguments directed to the rejection of claims based on 35 USC 101 are non-persuasive. In order to overcome the rejection of the claims based on 35 USC 101, language indicating that at least some of the steps of the method are carried out by the use of technology must be incorporated within the body of the claims.

Regarding the requirement under 35 U.S.C. 101 that a claimed invention be limited to the technological arts in order to be deemed statutory and in response to Appellant's arguments, the Examiner submits that the phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts." See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an

invention is eligible for a patent is to determine if the invention is within the "technological arts."

Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature," "natural phenomena," and "abstract ideas." See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998). This addresses the second test under 35 U.S.C §101 of whether or not an invention is eligible for a patent. The Manual of Patent Examining Procedure reiterates this point. More specifically, MPEP §2106(II)(A) states, "The claimed invention as a whole must accomplish a practical application. That is, it must produce a 'useful, concrete and tangible result.' *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02." Furthermore, "Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101." (MPEP § 2106(II)(A))

This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-

Art Unit: 3626

statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson*, 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the “technological arts.” The court developed a “technological arts” analysis:

The “technological” or “useful” arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it “enhances” the operation of a machine. *In re Toma* at 857.

In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the “technological art” because the claimed invention was an operation being performed by a computer within a computer.

The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the “mathematical exception” using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory subject matter should be based on whether the operation produces a “useful, concrete and tangible result.” See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no “business method exception” since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that “[w]hether the

Art Unit: 3626

patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112.” See *State Street Bank & Trust Co.* at 1377. Both of these analyses go towards whether the claimed invention is non-statutory because of the presence of an abstract idea. *State Street* never addressed the first part of the analysis, i.e., the “technological arts” test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) **was already determined to be within the technological arts** under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences in affirming a §101 rejection finding the claimed invention to be non-statutory for failing the technological arts test. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

What is indeed important to note in the *Bowman* decision is that the Board acknowledged the dichotomy of the analysis of the claims under 35 U.S.C. §101, thereby emphasizing the fact that not only must the claimed invention produce a “useful, concrete and tangible result,” **but that it must also be limited to the technological arts** in order to be deemed statutory under the guidelines of 35 U.S.C. §101. The Board very explicitly set forth this point:

[1] We agree with the examiner. Appellant has carefully avoided tying the disclosed and claimed invention to any technological art or environment. As noted by the examiner, the disclosed and claimed invention is directed to nothing more than a human making mental computations and manually plotting the results on a paper chart [answer, page 5]. The Examination Guidelines for Computer-Related Inventions are not dispositive of this case because there is absolutely no indication on this record that the invention is connected to a computer in any manner.

Art Unit: 3626

Despite the express language of 35 U.S.C. §101, several judicially created exceptions have been excluded from subject matter covered by Section 101. These exceptions include laws of nature, natural phenomenon, and abstract ideas. See *Diamond v. Diehr*, 450 U.S. 175, 185, 209 USPQ 1, 7(1981). We interpret the examiner's rejection as finding that the claimed invention before us is nothing more than an abstract idea because it is not tied to any technological art or environment. Appellant's argument is that the physical (even manual) creation of a chart and the plotting of a point on this chart places the invention within the technological arts.

The phrase "technological arts" has been created to offer another view of the term "useful arts." The Constitution of the United States authorizes and empowers the government to issue patents only for inventions which promote the progress [of science and] the useful arts. We find that the invention before us, as disclosed and claimed, does not promote the progress of science and the useful arts, and does not fall within the definition of technological arts. The abstract idea which forms the heart of the invention before us does not become a technological art merely by the recitation in the claim of "transforming physical media into a chart" [sic, drawing or creating a chart] and "physically plotting a point on said chart."

In summary, we find that the invention before us is nothing more than an abstract idea which is not tied to any technological art, environment, or machine, and is not a useful art as contemplated by the Constitution of the United States. The physical aspects of claim 1, which are disclosed to be nothing more than a human manually drawing a chart and plotting points on this chart, do not automatically bring the claimed invention within the technological arts. For all these reasons just discussed, we sustain the examiner's rejection of the appealed claims under 35 U.S.C. §101. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669, 1671 (BdPatApp&Int 2001)

Similarly, in the present application, claims 1-13, and 17-20 are deemed to be non-statutory because they are not limited to the technological arts; all recited steps could be performed manually by a human, thereby reinforcing the fact that Applicant's

Art Unit: 3626

invention fails to “[p]romote the progress of science and useful arts,” as intended by the United States Constitution under Art. I, §8, cl. 8 regarding patent protection.

The Examiner respectfully disagrees with the Applicant’s assertion that *Ex Parte Bowman* is “clearly distinguished from the facts of the present application.” The Applicant suggests that present application is distinguished from the *Bowman* case in that it (*Bowman*) “carefully avoided tying the disclosed and claimed invention to any technological art or environment.” However, it is noted that the Applicant has now amended the claim language to also remove any technology from the claimed method. Mere recitation of a “database” as currently found in the rejected claims is not sufficient to meet the technological arts requirement, as a database may be defined as “any aggregation of data.” (*Microsoft Press Computer Dictionary*, 2nd Edition, page 105) Therefore, as explained in the 101 rejection provided in the present Office Action, the current claim language does not preclude the steps of the claimed method from being carried out by paper and pencil and/or in the mind of the user.

In conclusion, the Examiner submits that Applicant’s claims do not meet the technological arts requirement under 35 U.S.C. §101, as articulated in *Musgrave*, *Toma*, and *Bowman* as well as the Manual of Patent Examining Procedure.

(B) Applicant argues that the Iyengar reference does not disclose a system or method that calculates the cost of a plurality of travel products.

In response, the Examiner disagrees with Applicant’s interpretation of the art. Iyengar is directed to a system that determines fares and allows users to book

Art Unit: 3626

reservations for travel products including airline flights, hotels and car rental. Applicant specifically argued that Iyengar fails to disclose calculation costs for a plurality of products. However, the Examiner notes that nowhere in the claimed invention is there a requirement that searches for travel products be done any differently than as disclosed in Iyengar. The Applicant does not provide any formula or algorithm that is used to calculate the fares that are obtained by the recited method and system.

Examiner notes the independent claims were amended to include a recitation to a plurality of travel products. However, this amendment does not overcome the disclosure of Iyengar and Jafri previously applied. It is respectfully submitted that the applicant fails to recognize the breadth of the claim language. In other words, "a plurality of travel products" does not preclude a plurality of flights from being retrieved and fares for each flight being provided to the user. It is noted that only one of the independent claims identifies the types of products that are encompassed by the phrase "plurality of products." This limitation has been addressed accordingly with a new reference. Therefore, Applicant's arguments directed to the Iyengar reference are non persuasive.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Tagawa (USPN 5,732,398) discloses a system and method for booking vacation packages, making including airline, cruise, hotel, and car rental reservations.

Art Unit: 3626

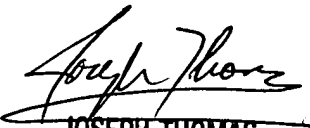
- Scipioni (USPN 6,336,097) discloses a system and method for travel fare construction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel L. Porter whose telephone number is (571) 272-6775. The examiner can normally be reached on M-F, 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas can be reached on (571) 272-6776. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RP


JOSEPH THOMAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600